

ART 34 AMDT CLAIMS:

1. A liquid filter arrangement comprising:
 - (a) a housing;
 - (b) a primary filter element comprising fibrous media operably positioned within the housing; said primary filter element comprising a cylindrical extension of media defining an internal volume;
 - (c) a secondary filter construction completely circumscribed by the cylindrical extension of media of the primary filter element;
 - (i) the secondary filter construction comprising a porous screen operably positioned to filter liquid after the liquid has passed through the primary filter element and before the liquid has left the housing; and,
 - (d) a bypass valve construction positioned to selectively permit liquid flow to bypass the primary filter element and to pass through the screen of the secondary filter construction, whenever the bypass valve construction is open.
2. A liquid filter arrangement according to claim 1 wherein:
 - (a) said secondary filter construction comprises said porous screen supported by a support structure; said screen being spaced from said primary filter element to define an intermediate flow chamber therebetween.
3. A liquid filter arrangement according to claim 2 wherein:
 - (a) said secondary filter construction comprises a wire screen supported by a porous support tube.
4. A liquid filter arrangement according to claim 3 wherein:
 - (a) said porous support tube, of said secondary filter construction, comprises a spiral wound, edge interlocked, metal support tube.

5. A liquid filter arrangement according to any one of claims 1-4 wherein:
 - (a) said-bypass valve construction is completely circumscribed by said cylindrical extension of media of said primary filter element.
6. A liquid filter arrangement according to any one of claims 1-5 further including:
 - (a) a primary filter media support tube positioned between said primary filter media and said porous screen of said secondary filter construction; said primary filter media support tube being positioned spaced from said porous screen to form said intermediate flow chamber therebetween.
7. A liquid filter arrangement according to claim 6 wherein:
 - (a) said porous screen and said support structure, of said secondary filter construction, together define a tubular structure having first and second opposite ends:
 - (i) said first end of said tubular structure being secured to a first, open, end piece; and
 - (ii) said second end of said tubular structure being secured to a second, closed, end piece.
8. A liquid filter arrangement according to claim 7 wherein:
 - (a) said primary filter media support tube has first and second ends:
 - (i) said first end of said primary filter element support tube being secured to said first, open, end piece; and,
 - (ii) said second end of said primary filter element support tube being spaced from, and extending axially beyond, said second, closed, end piece.
9. A liquid filter arrangement according to claim 8 including:
 - (a) a bypass end piece having a bypass flow aperture therein;

- (i) said second end of said primary filter element support tube being secured to said bypass flow end piece to enclose said secondary support structure within a volume defined by:
 - (A) said bypass flow end piece;
 - (B) said primary filter element support tube; and,
 - (C) said first, open, end piece.

- 10. A liquid filter arrangement according to claim 9 wherein:
 - (a) said bypass valve construction is positioned within said volume defined by:
 - (A) said bypass flow end piece;
 - (B) said primary filter element support tube; and
 - (C) said first, open end piece.

- 11. A liquid filter arrangement according to any one of claims 1-10 wherein:
 - (a) said cylindrical extension of media of primary filter element comprises an extension of pleated media having first and second, opposite ends.

- 12. A liquid filter arrangement according to claim 10 wherein:
 - (a) said cylindrical extension of media has first and second, opposite, ends;
 - (i) said first end, of said extension of media being non-releaseably secured to said first, open, end piece; and,
 - (ii) said second end of said extension of pleated media being non-releaseably secured to said bypass valve end piece.

- 13. A liquid filter arrangement according to claim 12 including:
 - (a) a top plate positioned within said housing and permanently retaining said primary filter element, said secondary filter construction and said bypass valve construction in said housing, to form a disposable filter unit.

14. A liquid filter arrangement according to claim 10 wherein:
 - (a) said primary filter element comprises said cylindrical extension of media extending between: a first, open, primary filter element end piece; and a second, open, primary filter element end piece;
 - (i) said first, open, primary filter element end piece being releaseably sealed to said first, open, end piece of said secondary filter construction; and
 - (ii) said second, open, primary filter element end piece being releaseably sealed to said bypass valve end piece.
15. A liquid filter arrangement according to claim 14 wherein:
 - (a) said primary filter element comprises a removable and replaceable component in said housing.
16. A liquid filter arrangement comprising:
 - (a) a primary filter element having a cylindrical configuration of fibrous media defining an open filter interior;
 - (b) a secondary filter element positioned within said open filter interior, said secondary filter element comprising a metal wire screen supported by a tubular support structure.
17. A liquid filter arrangement according to claim 16 wherein:
 - (a) said wire screen comprises a wire size of 0.030 inches in diameter or smaller.
18. A liquid filter arrangement according to claim 17 wherein:
 - (a) said wire screen has a wire density within the ranges of 20 to 50 per inch by 100 to 250 per inch.
19. A liquid filter arrangement according to claim 16 wherein:
 - (a) said wire screen comprises a plain Dutch weave.

20.

A method for filtering liquid comprising:

- (a) directing liquid through a primary filter element; and then
- (b) directing the liquid through a porous screen completely circumscribed by the primary filter element; and
- (c) opening a bypass valve to permit the liquid to bypass the primary filter element and to pass through the porous screen.